

David Murry

From: Charles Maguire
Sent: Friday, August 17, 2012 3:24 PM
To: Lorrie Council; David Murry
Subject: FW: Powerpoint Presentation from Today's Meeting (proposed Goliad County Aquifer Exemption)
Attachments: Technical Meeting Goliad Exemption 8-16-12.pptx

fyi

From: Stacey Dwyer [mailto:Dwyer.Stacey@epamail.epa.gov]
Sent: Thursday, August 16, 2012 4:32 PM
To: Harry Anthony; Andy Barrett; Charles Maguire; Art Dohmann; afriedman@blackburncarter.com; jbb@blackburncarter.com; raulieirwin@yahoo.com; larrydunbar@comast.net
Cc: William Honker; Wren Stenger; Philip Dellinger; Chrissy Mann; David Gillespie
Subject: Powerpoint Presentation from Today's Meeting (proposed Goliad County Aquifer Exemption)

Good Afternoon,

I thank all of you for traveling to attend today's meeting. It was a good discussion. Here is Ray's power point presentation.

Stacey B. Dwyer, P.E.
Associate Director
Source Water Protection Branch
U.S. EPA Region 6
214-665-6729 phone
214-665-2191 fax

Technical Meeting

Goliad Exemption

8-16-12

Issues with the latest submissions

- TCEQ has requested exemption of A, B, C and D sands
- Exemption area has been informally reduced
- Additional submissions for the reduced exemption include:
 - Files electronically submitted 7/12-13/12
 - CDs provided through the mail
 - Application for mining permit
 - Application for PAA -1
 - GW modeling approaches

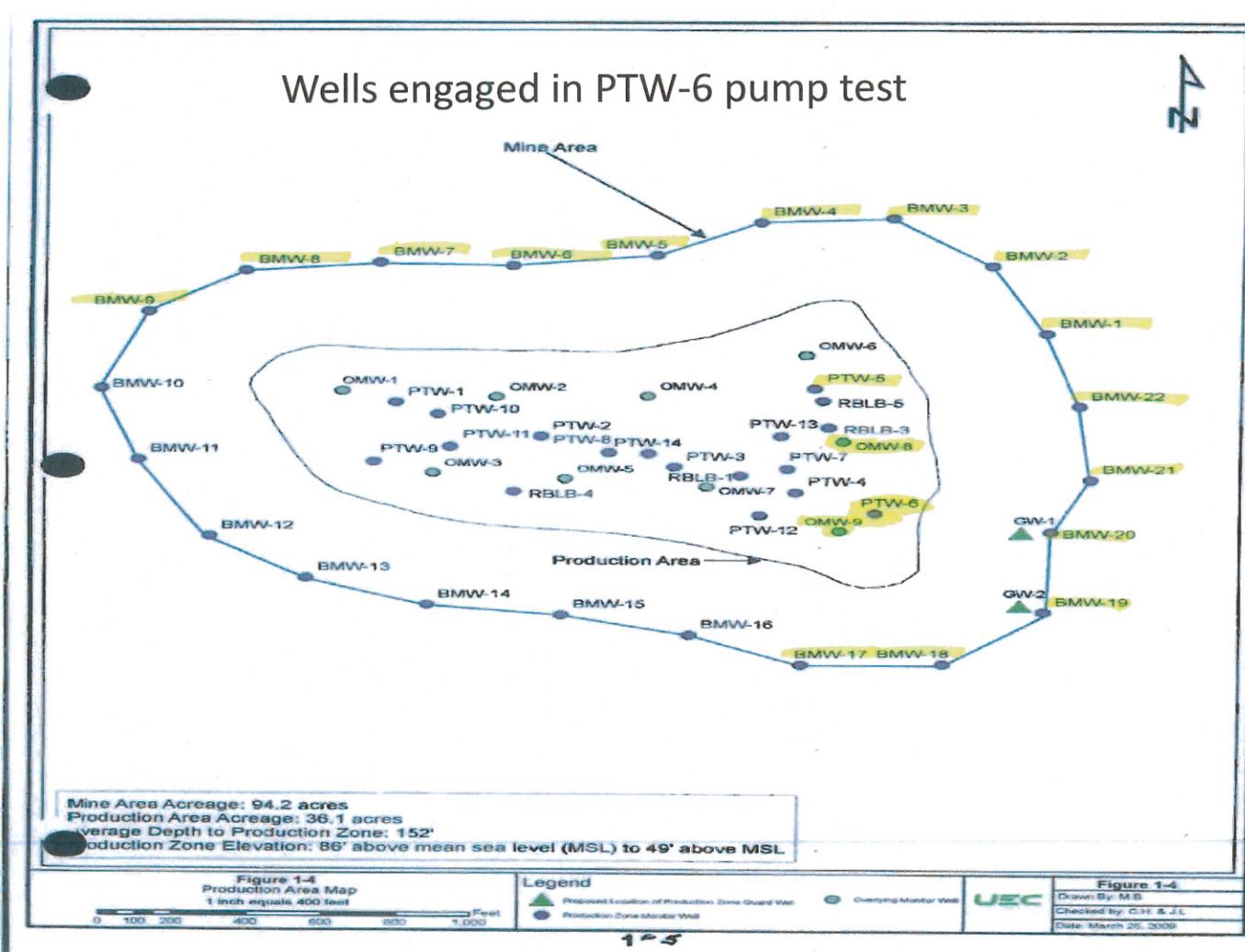
Exemption requires compliance with the current use criterion – aquifer does not currently serve as an USDW

Submissions provide:

- Pump test data
- Cross sections
- Clay layer thickness
- Fluid level measurements
- GW modeling approaches

Pump tests

- Two pump tests were conducted
 - PTW 1 provides no proof of hydraulic isolation with no overlying monitor wells
 - PTW 6 shows only localized isolation with two overlying monitor wells



Results of PTW-6 pump test

- Shows good communication with monitor well ring
- Indicates hydraulic isolation with OMW-9 completed in A sand
- Results of second OMW-8 is not clear

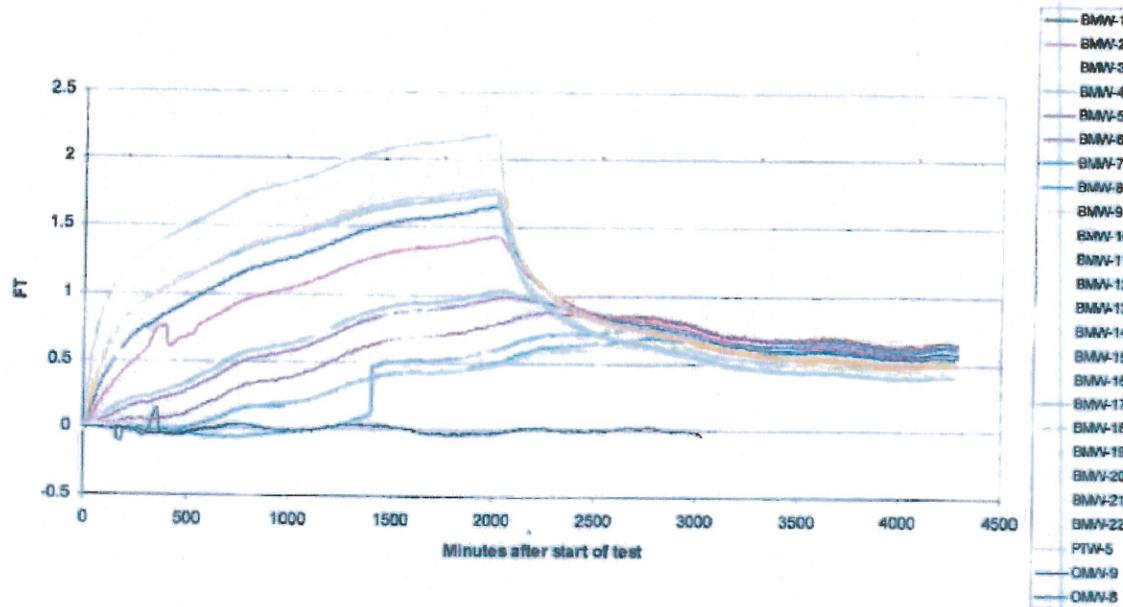


Figure 4.7. Water level drawdown and recovery in Troll observation wells for the PTW-6 test.

Can pump tests be relied upon to find hydraulic isolation between A and B sands exists?

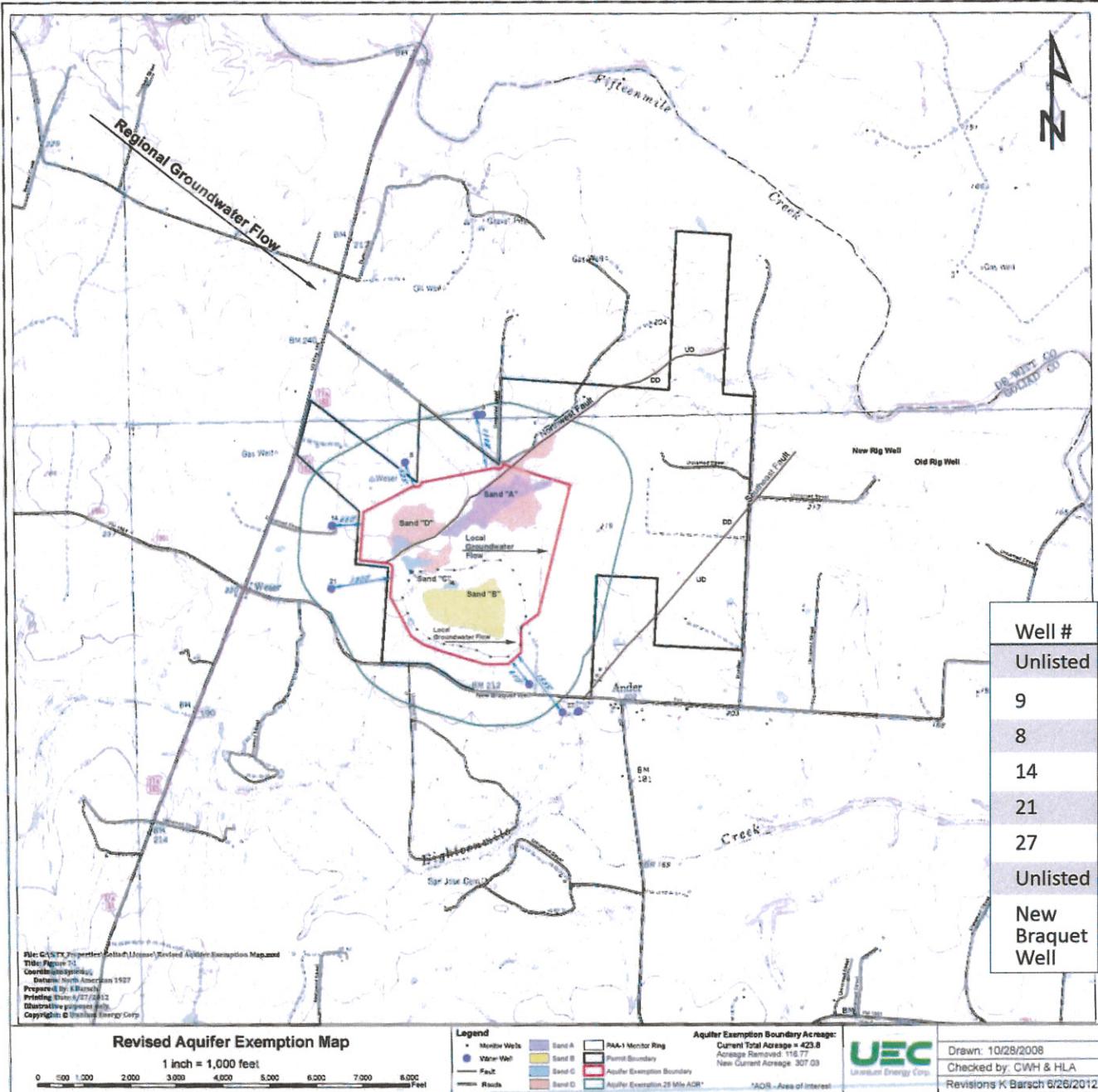
- Distance between pump test well PTW-6 and OMW-9 showing good isolation is approximately 125'
- There is a much greater distance between the test and down gradient wells of concern
 - Distance to the Braquet well is approx. 1400'
 - Distance to the Church wells is approx. 2300'
- Pump test using PTW -6 is simply too far away to extrapolate results to wells of concern

Cross-sections indicate laterally extensive confining layers *however*

- Cross-sections also indicate two faults forming a graben within the facility boundaries
 - NW fault
 - SE fault
- Numerous cross-sections dissecting the faults indicate vertical displacement sufficient to provide concern that the faults could be vertically transmissive and different sand layers could be in communication with each other at the faults
- The SE fault runs very close to the Church wells
- Numerous artificial penetrations may remain open in the direction of the wells of concern

Wells of Concern in Modified AOR

8/16/12



| Well # | Owner | Depth | Source |
|------------------|-------------|---------|-------------------|
| Unlisted | Duderstadt2 | 130' | GCGWCD |
| 9 | Duderstadt1 | 50' | GCGWCD |
| 8 | M. Walker 1 | unknown | Application |
| 14 | D. Cheek 2 | unknown | Application |
| 21 | T. Long | 80' | Application |
| 27 | Church 1 | 96' | Water well report |
| Unlisted | Church 2 | 80' | Church member |
| New Braquet Well | | 95' | Water well report |

Figure 6.7 Cross-section Index Map

